

Darwin Initiative Main/Post/D+ Project Half Year Report (due 31 October 2016)

Project Ref No	23-003
Project Title	Eradicating invasive species from the highest priority Caribbean island
Country(ies)/Territory(ies)	Antigua and Barbuda (with Montserrat)
Lead Organisation	Fauna & Flora International
Partner(s)	Department of Environment (Government of Antigua and Barbuda), Environmental Awareness Group, British Mountaineering Council, Wildlife Management International Ltd.
Project Leader	<i>Dr Jenny Daltry</i>
Report date and number (e.g., HYR3)	<i>HYR1</i>
Project website/ Twitter/ Blog/ Instagram etc	<i>Not yet</i>
Funder (DFID/Defra)	<i>Defra</i>

1. Outline progress over the last 6 months (April – Sept) against the agreed baseline timetable for the project (if your project has started less than 6 months ago, please report on the period since start up to end September).

The project is on track and has already made good progress against the planned outputs. Below is a summary of progress against the agreed timetable (showing only activities that were intended to begin in Q1 or Q2, or that have begun ahead of schedule):-

Output 1 Alien invasive vertebrates (rats and goats) successfully removed from Redonda, with systems in place to prevent (re)invasions

1.1 Complete Operational Plan and SOPs to remove goats and eradicate rats (COMPLETED) After conducting field surveys, field trials and extensive consultations between May and July, the operational plan for removing the feral goats was completed in August (led by the internationally renowned goat removal specialist Dr Karl Campbell from Island Conservation) and the operational plan for eradicating rats was completed in September (led by rat eradication specialist Elizabeth Bell). Both plans have been reviewed and approved by FFI's partners and the Project Steering Committee. Relevant Standard Operating Procedures (e.g. how to catch goats, how to store and handle rodenticide) have been incorporated into these plans, with the exception of a special SOP for use of firearms to cull the goats (prepared separately by our Goat Relocation Adviser Peter Haverson to meet the requirements of the Royal Police Force of Antigua and Barbuda). In addition, the project team conducted Risk Assessments of all island-based field activities in Year 1 and produced the detailed Health and Safety Guidelines for Fieldworkers on Redonda, which all persons involved in this project will be required to read and abide by. These plans and guidelines will be reviewed and updated if needed over the remainder of Year 1 before being posted and shared online for the benefit of other projects.

Output 2 Monitoring system established to measure the responses of fauna, flora and ecological processes to the removal of alien invasive vertebrates

2.1 Project scientists design and agree standardised methods to monitor birds, reptiles, bats, invertebrates, plants, soil and microclimate (COMPLETED). Methodologies have

been drafted by Dr Jenny Daltry through a series of meetings with the project Steering Committee and local volunteer biologists. Where possible this project is adopting methods that have been used on Redonda previously (to ensure data from this project will be comparable with earlier baselines) and methods established to monitor biodiversity on other Caribbean islands, for the purposes of comparison.

2.2 Conduct monitoring as per 2.1 during the grant period (before and after removing the goats and rats) (UNDERWAY). Baseline data were collected on birds, reptiles and plants in July by Dr Jenny Daltry, Natalya Lawrence, Adam Long, Elizabeth Bell and other members of the project team. During this preliminary study, the team discovered several species that had not been reported on Redonda before (some of which have been identified from photographs by botanist Kevel Lindsay, others will require collection to confirm their identity), and rediscovered a rare, possibly endemic lichen (identified from photographs by Dr Holger Thues, Senior Curator Lichens and Myxogastria, Natural History Museum, London). Most of the new plant records were found by British mountaineer Adam Long abseiling down cliffs to small pockets of vegetation in areas the goats cannot reach. However, our findings from 2016 also show an overall reduction in bird populations, reptile populations and vegetation cover, which may be attributed to the severe impacts of feral goats and black rats (which are to be removed over the next 6–9 months).

Output 3 Redonda becomes a protected area in accordance with the Sustainable Island Resource Management Zoning Plan for Antigua & Barbuda, with an effective structure to manage its ongoing ecological recovery and sustainable use

3.1 Complete stakeholder consultations in Antigua and Montserrat (COMPLETED/ ONGOING): Stakeholder consultations were conducted in Antigua throughout Q1 and Q2, with group meetings and individual meetings with a wide range of interested individuals and organisations. The most recent of these was a public presentation and questions-and-answers session at the National Museum in St John's, Antigua. Senior members of the project team also travelled to Montserrat in July and September to discuss various aspects of the project with the Department of Environment, Department of Agriculture and local fishers (fishers from Montserrat are known to fish around Redonda and hunt the goats). This is intended to be an ongoing activity in order to engage with stakeholders in both countries. Following consultations with senior staff from the National Parks Authority and national focal point for UNESCO in May, the National Parks Authority provided two archaeologists to survey the archaeology of Redonda to (a) Assess and describe the buildings, Amerindian middens and other historical features that will add weight to designating Redonda a protected area, and (b) Advise the project field biologists on "dos and don'ts" to avoid damaging the archaeology (e.g. ensuring the fence posts for the goat corral are not placed in areas that could damage important sites). A preliminary report on the archaeology of Redonda was produced in July, and further studies are planned in 2017.

Output 4 National capability to plan, manage and implement and monitor invasive species projects is raised, supported by enhanced technical skills and greater public awareness and cooperation

4.1 Plan multi-media campaign to communicate project to the public on Antigua and Barbuda and neighbouring states (COMPLETED): The project's communication strategy was developed through a 2-day workshop with local stakeholders in May 2016, facilitated by the project's Education and Outreach Officer Natalya Lawrence (EAG), Dr Helena Jeffery-Brown (Department of Environment) and Jenny Daltry (FFI). Participants identified the various stakeholder/ audience groups, what we would like them to know or do, and the best means of conveying messages to them. Importantly, this process revealed that for most of the target groups, the most effective means of communication were through methods that cost nothing but time, e.g. personal meetings, radio phone in shows, and social media. Natalya Lawrence also conducted a questionnaire survey to evaluate local knowledge and attitudes towards Redonda, to serve as the baseline for evaluating changes resulting from this project's education and outreach activities. A report on the findings will be produced in Q3.

4.2 Implement campaign, including media releases, signage on Redonda and phone-in radio shows, and evaluate impact on public (UNDERWAY): Even though the outreach campaign was not timetabled to begin until Q3, FFI and our partners issued a joint media

release in July (see <http://www.fauna-flora.org/news/captivating-caribbean-island-to-be-given-a-new-lease-of-life/>), which was widely picked up by the national media (e.g. *The Daily Observer*, *Antigua Chronicle*) and international media, including Mongabay.com and *The Guardian* (<https://www.theguardian.com/environment/2016/aug/01/caribbean-island-launches-plan-to-remove-invasive-rats-and-goats>). The project to restore Redonda was also announced in *Zing*, the inflight magazine of LIAT (the Antigua-based airline that operates throughout the Caribbean). Happily, the feedback we received was overwhelmingly positive and supportive.

4.3 Analyse training needs of field personnel (UNDERWAY): Appraisals are being led by Dr Daltry with input from the other project technical experts, including Dr Karl Campbell, Peter Haverson (Goat Removal Advisors) and Elizabeth Bell (Rat Eradication Team Leader), who have spent time with local field personnel in Q1 and Q2. Particular attention is being paid to gaps and needs with regard to project management, invasive species control, and biodiversity surveys and monitoring, which are to be addressed during the remainder of this project. While many persons in Antigua have useful and relevant field skills (e.g. identifying birds, safe use of rodenticide), few are confident and proficient in data management and analysis, and report writing.

4.4 Conduct training classes and on-the-job mentoring for local personnel participating in eradication and biosecurity activities (UNDERWAY): Although not scheduled to begin until Q4, the project's Education and Outreach Officer Natalya Lawrence participated in an invasive species workshop with RSPB in Montserrat in September, during which she taught more than 20 personnel from Montserrat and other countries how to eradicate black rats and prevent incursions. Presentations by the project team in Antigua in May and July have also helped to introduce a new audience of government technical staff to the methods used for eradicating invasive alien mammals, and why this is important for biodiversity conservation—but these lessons need to be followed with hands-on practical work, which will commence in Q3.

4.5 Conduct training classes and on-the-job mentoring for local personnel participating in biodiversity monitoring (UNDERWAY): No formal classes were held during the reporting period, but methods for bird, reptile and plant surveys were discussed with local personnel, including the Environmental Awareness Group's core team of volunteer field biologists (Andrea Otto, Joseph Prosper and Victor Joseph), and staff from the Departments of Environment, Fisheries and Forestry. In addition, a wide range of equipment has been purchased, or obtained as in-kind donations, for surveys by local personnel, including GPS units, binoculars and reference books.

4.6 Local technicians participate in project meetings and key field activities with FFI training and mentoring where needed (UNDERWAY): From the start of this project, FFI staff have been working alongside more than 20 Antiguan from government agencies, NGOs and the private sector. Most of them are members of the Project Steering Committee (see below) or colleagues from their departments. In Q2, special attention was paid to building the skills and experience of Shanna Challenger, an Antiguan ecologist who has been appointed as Programme Coordinator. Because she has not worked on such a major project before, Ms Challenger spent 10 days with FFI in Cambridge in August for training in project management and has since been involved in every aspect of project planning and implementation, working alongside the FFI Project Leader.

Output X Project Management

X.1 Project inception meeting (COMPLETED): The Inception Meeting was held over 2 days in May at the Department of Environment in St John's Antigua. Participants included representatives from the relevant government agencies (including Environment, Forestry, Fisheries, National Parks Authority, National Archives), Environmental Awareness Group, local schools and tourism businesses.

X.2 Project Steering Committee meetings (UNDERWAY): The Project Steering Committee was formed at the Inception Meeting in May, and met again in July. As hoped, sub-groups of the Steering Committee have formed to help plan and review areas of the project relevant to their skills and interests. These include a sub-group on the removal of feral goats (representatives from FFI, EAG, Department of Agriculture, Department of Environment and Caribbean Helicopters Ltd) and a sub-group focusing on marine surveys and protected area

planning (representatives from FFI, EAG, Department of Environment and Fisheries Division).

X.3 Project biannual reports/ donor technical and financial reports (COMPLETED/ ONGOING): Completed reports include the first financial report to National Fish & Wildlife Service, the first technical and financial report to Taurus Foundation, and illustrated updates to private sponsors.

X.4 Monthly financial accounts (COMPLETED/ ONGOING): FFI and the Project Leader have maintained detailed accounts of spending each month, which are available for Darwin to review at any time.

2a. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

A primary focus of activity in Q1 and Q2 has been to put in place all the necessary preparations for removing the goats from Redonda in Q3 and eradicating the entire rat population in Q4. These are complex and difficult aims, but the Darwin project is well on track and, overall, has gone remarkably smoothly so far. The project's high level of support and involvement from the Government of Antigua and Barbuda— a partnership that was built up over several years of consultations and planning even before applying to Darwin Initiative— has greatly helped us to navigate the processes for securing permissions (e.g. permits to construct temporary corrals on Redonda to catch goats, and police permits to import firearms to cull any surviving goats) and enabled equipment to be purchased and imported duty-free and often VAT-free. Currently, we foresee no significant changes to the agreed timetable, but when working with wild animals and in remote sites there is always the possibility of some activities not going exactly to plan. We are prepared to make adjustments if necessary to achieve the required outputs.

The only major problem to have affected this project so far has been the terrible fall in the value of the pound since June. Antigua is a dollar economy and, by October, the value dropped below £1 = EC\$3.30 (compared to EC\$4.08 when the grant proposal was submitted in late 2015). Consequently, at the time of this report, the Darwin grant is worth around EC\$220,000 (US\$82,300) less than originally anticipated! At the same time, some costs have increased with, for example, our precautionary decision to remove human waste from Redonda during the rat eradication operation (following a system recently trialled on the Shiant's Isles, Scotland) and the decision to assist the Veterinary and Livestock Division to upgrade their facilities for the rare breed goats once they arrive in Antigua, to help minimise the risk of animals dying from stress or stolen. FFI has therefore worked hard to raise additional funds and we are pleased to confirm that new grants have been secured from Taurus Foundation (£5,000), Global Wildlife Conservation (US\$87,510) and private sponsors (£19,000).

Other, less significant issues concern some changes to personnel. The named Programme Coordinator, Ruleo Carmacho, became unavailable once the project started, having taken a full-time post with the Department of Environment. He is still very actively involved in this project, however, in particular on plans to conduct marine surveys around the island to inform and support its protected area designation. We therefore advertised the Programme Coordinator position in Antigua and appointed Shanna Challenger to this key position in August. Another change is that Caribbean Helicopters Ltd are donating the time of their Chief Pilot as the project's Helicopter Team Leader. We have decided to use that budget line to employ animal control expert Peter Haverson for seven weeks to oversee the goat capture and relocation. Mr Haverson, a British citizen, joined the project in October.

2b. Have any of these issues been discussed with LTS International and if so, have changes been made to the original agreement?

Discussed with LTS: Yes/No

Formal change request submitted: Yes/No

Received confirmation of change acceptance Yes/No

3a. Do you currently expect to have any significant (e.g., more than £5,000) underspend in your budget for this year?

Yes No Estimated underspend: £

3b. If yes, then you need to consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project please submit a rebudget Change Request as soon as possible. There is no guarantee that Defra will agree a rebudget so please ensure you have enough time to make appropriate changes if necessary.

4. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?

We apologise that this report is one week late, due to the Project Leader being in the field throughout October with limited communications.

If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also be raised with LTS International through a Change Request.**

Please send your **completed report by email** to Eilidh Young at Darwin-Projects@ltsi.co.uk . The report should be between 2-3 pages maximum. **Please state your project reference number in the header of your email message e.g., Subject: 22-035 Darwin Half Year Report**